PEER REVIEW HISTORY

ARTICLE DETAILS

TITLE (PROVISIONAL)	Implementation of a training program to increase knowledge, improve attitudes and reduce nursing care omissions towards patients with dementia in hospital settings: a mixed method study protocol.
AUTHORS	Evripidou, Melina; Merkouris, Anastasios; Charalambous, Andreas; Papastavrou, Evridiki

VERSION 1 – REVIEW

REVIEWER	Louise Allan University of Exeter
REVIEW RETURNED	01-Apr-2019

GENERAL COMMENTS	This study addresses an important area- the quality of nursing care for people with dementia. It seems quite reasonable to design a research study to test whether a teaching programme changes knowledge and attitudes to dementia. Little information is given about how stages 1 and 2 will influence the design of the teaching programme. The main problem with the manuscript is the poor use of English. Many of the sentences are too long with multiple sub-clauses. The introduction is too long and repetitive and at the end does not state the main objectives of the study. There are a number of errors in the English used. I have listed these for the abstract and introduction below but the remaining paper needs review for these. Abstract line 18 observation should be observational and again on line 44. page 2 line 8 on a regular basis not at a regular basis page 3 line 27 focus on not focus to page 4 lines 16-20 ungrammatical sentence page 4 line 37 I'm not sure that care discounts is a suitable term. Presumably you mean care omissions? line 51 remove in order to be succeeded- not good English page 5 line 43 has shown not have shown page 6 line 51 were not was Methods Consent is not clear for the survey page 13 line 8 do you mean more than once a day? you have said you are interested in emergency department nurses but they are excluded form the main study? a) sample- this is a very disorganised paragraph and difficult to follow the description of how the researcher will observe the patient is

	under wards which is not the right place for this how will the data be analysed into themes- are you using a software package to assist with this? stage 3 More detail of the sample size is needed It is not clear what the evaluations are in stage3- are these the same questionnaires as in stage 1? When stating this is a quasi-experimental study you need to make clear it is a before and after design The PPI section focusses on the participants and not how PPI have been involved in the design and conduct of the research There are details of the consent processes in the PPI section which should be in a separate consent section. It is not clear how capacity to consent will be assessed or what they will do if the participant lacks capacity. It seems that all participants relatives will be asked to give consent. Why is this necessary for those who do have capacity?

REVIEWER	Anne-Marie Boström Karolinska Institutet, NVS, Stockholm, Sweden
REVIEW RETURNED	28-Apr-2019

GENERAL COMMENTS	Dear authors, Your study protocol describes an important study, and your back ground presents the existing literature and the reasons for your study well. However, there are some flows in the method section that need to be revised. 1. In the method section you describe the three stages of your study. Stage 1 and 2 are mostly well presented. I lack the information about the sample size for stage 1 – how many nurses do you predict will be included in the survey, and what response rate will you expect. 2. The questionnaires that will be used (Dementia Knowledge Assessment Tool version 2 and Dementia Attitude Scale) are not translated so this will be one part of the project. It is a bit confusing if you have done that according to your time table or when this will be done. I assume you have to translate and test the translated version prior your survey for the nurses in stage 1 (maybe the translation process should be named as stage 0). 3. Stage 2 is clearly described but I think this approach could be more described and discussed whether this approach will generate reliable information. To what extent will nurses perform care in their “ordinary way” with an observer in a corner of the room? To get the information about missed nursing care to the project, are the other ways of collecting data that you should consider? 4. Regarding stage 3 you do not describe how the results/findings from stage 1 and 2 will inform your training. Will you conduct the same training to all nurses regardless to the findings from stage 1? Or will you tailor the training in regard to the self-reported knowledge and attitudes to dementia from the nurses from various wards or hospitals? 5. I find the description of stage 3 is lacking a lot of information regarding primary and secondary outcomes, power calculation of the sample due to primary outcome. On page 17 you write that there will be 40 nurses included, but will all of them respond on the questionnaire, what response rate do you expect? Will 40 persons be enough to detect a change? 6. The evaluation part (page 17) does not include any

	descriptions of data analyses, just that the data will be storage in the office and that a PhD candidate will be responsible. This section needs to be developed and clarified. 7. The time line on page 18 is unclear. How much data is already collected? 8. I would also consider to collect data regarding the organizational context such as leadership, support from colleagues, resources, and so on. The implementation science literature has overwhelmed reported that the organizational context is crucial in changing practice. This aspect is lacking in your plans for the intervention, and in your discussion, which should be considered. 9. There is no Discussion section in this protocol, I believe you should write a section where you discuss the strengths and limitations of your planned study. 10. Reference in the background (page 6) for the European project is missing (it is just a web address) 11. The aim in the abstract is not presented in the same way as in the article. 12. You need to revise the English in your protocol, and also some minor layout of the manuscript regarding references.

VERSION 1 – AUTHOR RESPONSE

Reviewer 1			
It seems quite reasonable to design a research study to test whether a teaching programme changes knowledge and attitudes to dementia. Little information is given about how stages 1 and 2 will influence the design of the teaching programme.	Thank you for your helpful remark. Indeed this kind of information was lacking. We have added how the training program will be influenced from the previous stages.	"In particular, based on stage 1 and 2 results the program will be modified. For instance if the level of nurses' knowledge seems to be low on stage 1, emphasis is going to be given on the particular topic. Regarding stage 2 results if missed care is detected in specifics aspects of care eg. feeding, the training program will focus on that. In general as far as it concerns missed care, if this is proven through stage 2, a lecture focusing on this topic is going to be added in the training program."	14
The main problem with the manuscript is the poor use of English.	Revised	We have sent the manuscript in an English colleague and edited it.	/
Many of the sentences are too long with multiple sub-clauses.	Revised	We have rewritten the manuscript using smaller sentences.	/
The introduction is too long and repetitive and at the end does not state the main objectives	Revised	We have deleted some parts of introduction section. Also, we have added the main objectives of the study in the last paragraph of introduction.	7

of the study.			
There are a number of errors in the English used. I have listed these for the abstract and introduction below but the remaining paper needs review for these. Abstract line 18 observation should be observational and again on line 44.	Revised	The manuscript has been sent to an English colleague for corrections.	2
page 2 line 8 on a regular basis not at a regular basis	Revised		2
page 3 line 27 focus on not focus to	Revised		3
page 4 lines 16-20 ungrammatical sentence	Revised	“Life expectancy increase associated with the multidimensional problem of dementia, inevitably leads to the need of investigating this topic.”	4
page 4 line 37 I'm not sure that care discounts is a suitable term. Presumably you mean care omissions?	Revised	Thank you for your clarification. The term “omissions” is much more common than “discount”.	4
line 51 remove in order to be succeeded- not good English	Revised	“For the accomplishment of this target [2], WHO recommends…”	4
page 5 line 43 has shown not have shown	Revised	“A study [19], has shown…by health professionals.”	5
page 6 line 51 were not was	Revised	“The main reasons for that phenomenon were lack of resources and time… protocol standards [29].”	6
Methods Consent is not clear for the survey	Revised	We have added a paragraph explaining the consent process.	18
page 13 line 8 do you mean more than once a day?	Revised	We rephrase that sentence for better comprehension. “…that last more than one day..”	10
you have said you are interested in emergency department nurses but they are excluded form the main study?	Revised	For the first attempt of this intervention we decided to include nurses from the general department since they have closer contact and care for longer periods patents with dementia. We are planning to include emergency department nurses at a later stage.	10

how will the data be analysed into themes- are you using a software package to assist with this?	Revised	"Themes will emerge through the data and no software package will be used."	13
stage 3 More detail of the sample size is needed	Revised	We have added a paragraph documenting the sample size.	14-15
It is not clear what the evaluations are in stage3- are these the same questionnaires as in stage 1?	Revised. This was a quite useful mention. This part was lacking from stage 3.	"Data analysis will be the same as stage 1, since the tools that will be used on stage one and three are the same."	15
When stating this is a quasi-experimental study you need to make clear it is a before and after design	Revised	"…a quasi-experimental study, with a before and after design, which will include one group and one pre and two post tests will follow."	13
The PPI section focusses on the participants and not how PPI have been involved in the design and conduct of the research	Not revised	As participants in the particular study are the patients themselves, unfortunately we cannot base the study design on them, but we highlighted the importance of consenting to participate in the study, mainly for stage 2. Regarding public involvement we have written that "…the outcome will be on stage three, as we will update our training program based on carers' experience." So, PPI will be involved in study design and conduct during stage 3.	18
There are details of the consent processes in the PPI section which should be in a separate consent section.	Revised	We have moved this paragraph to ethics section	18
It is not clear how capacity to consent will be assessed or what they will do if the participant lacks capacity.	Revised	"As patients' consent is an issue of conflict in the research field[104], we decided to proceed with the general practice regarding dementia studies and request relatives' signature[105], regardless of patients' capacity. The patient will be informed despite of his/her capacity, which is not going to be assessed."	18
It seems that all participants relatives will be asked to give consent. Why is this necessary for those who do have	Revised	We have added a paragraph explaining the reasons for requesting relatives' signature.	20

capacity?			
Reviewer 2			
Your study protocol describes an important study, and your back ground presents the existing literature and the reasons for your study well. However, there are some flows in the method section that need to be revised. 1. In the method section you describe the three stages of your study. Stage 1 and 2 are mostly well presented. I lack the information about the sample size for stage 1 – how many nurses do you predict will be included in the survey, and what response rate will you expect.	Thank you for comments. Indeed this information was lacking, so we included it.	"The sample will include all nurses, working in acute hospital settings, specifically in medical, surgical and orthopedic departments, of the 5 main general hospitals of the country and provide care for PwD. Power analysis revealed sample estimation at 364 participants. Approximately 400 questionnaires are planned to be distributed and the response rate must be over 70%."	8
2. The questionnaires that will be used (Dementia Knowledge Assessment Tool version 2 and Dementia Attitude Scale) are not translated so this will be one part of the project. It is a bit confusing if you have done that according to your time table or when this will be done. I assume you have to translate and test the translated version prior your survey for the nurses in stage 1	Revised	"The translation process has been done during September-January 2019. The pilot study has started on 3rd of February and has ended on 29th of April 2019. The present stage of the study is on stage 1, the descriptive part. The questionnaires were distributed, since the 10th of May, 2019, and this phase is expected to be finalized until 15th-20th of June."	16

(maybe the translation process should be named as stage 0).			
3. Stage 2 is clearly described but I think this approach could be more described and discussed whether this approach will generate reliable information. To what extent will nurses perform care in their "ordinary way" with an observer in a corner of the room? To get the information about missed nursing care to the project, are the other ways of collecting data that you should consider?	Revised	We also have those concerns, but after studying all the possible methodologies and literature we realize that observation is the only method that can collect data from "real settings". Indeed, the first week were the pilot study is going to be carried out nurses are expected to feel "uncomfortable", but as time passes normal behaviors will be restored. We have added two paragraphs discussing this topic.	11
4. Regarding stage 3 you do not describe how the results/findings from stage 1 and 2 will inform your training. Will you conduct the same training to all nurses regardless to the findings from stage 1? Or will you tailor the training in regard to the self-reported knowledge and attitudes to dementia from the nurses from various wards or hospitals?	Revised	"In particular, based on stage 1 and 2 results the program will be modified. For instance if the level of nurses' knowledge seems to be low on stage 1, emphasis is going to be given on the particular topic. Regarding stage 2 results if missed care is detected in specifics aspects of care eg. feeding, the training program will focus on that. In general as far as it concerns missed care, if this is proven through stage 2, a lecture focusing on this topic is going to be added in the training program." "However priority will be given to nurses who work most with PwD, such us medical, orthopedic or surgical wards, since the descriptive study is going to take place among those departments."	14-15
5. I find the description of stage 3 is lacking a lot of information regarding primary and secondary outcomes, power calculation of the	Revised	We have added two paragraphs providing sufficient details about stage 3.	15

sample due to primary outcome. On page 17 you write that there will be 40 nurses included, but will all of them respond on the questionnaire, what response rate do you expect? Will 40 persons be enough to detect a change?			
6. The evaluation part (page 17) does not include any descriptions of data analyses, just that the data will be storage in the office and that a PhD candidate will be responsible. This section needs to be developed and clarified.	Revised	This section has been developed in order to be more comprehensive.	15-16
7. The time line on page 18 is unclear. How much data is already collected?	Revised	We have reformatted the timeline paragraph for better clarification.	16
8. I would also consider to collect data regarding the organizational context such as leadership, support from colleagues, resources, and so on. The implementation science literature has overwhelmed reported that the organizational context is crucial in changing practice. This aspect is lacking in your plans for the intervention, and in your discussion, which	Revised	We acknowledge the high importance of organizational context, which is already investigated in previous studies and we have added the related references in the discussion section.	16-17

should be considered.			
9. There is no Discussion section in this protocol, I believe you should write a section where you discuss the strengths and limitations of your planned study.	Revised	Indeed we have not included a discussion section due to the limited number of words allowance, but we are referring to strengths and limitations of the study in "Article summary" section. We have added a discussion section though, were we discussed about the factors of missed care.	3,16-17
10. Reference in the background (page 6) for the European project is missing (it is just a web address)	Revised	Scott, P. A., Harvey, C., Felzmann, H., Suhonen, R., Habermann, M., Halvorsen, K.Papastavrou, E. (2018). Resource allocation and rationing in nursing care: A discussion paper. Nursing Ethics. https://doi.org/10.1177/0969733018759831	30
11. The aim in the abstract is not presented in the same way as in the article.	Revised	"The purpose of this study is to advance the level of knowledge, promote positive attitudes of nurses and reduce care deficits towards PwD through the implementation of a training program."	1
12. You need to revise the English in your protocol, and also some minor layout of the manuscript regarding references	Revised	The manuscript has been sent to an English colleague for corrections.	/

VERSION 2 – REVIEW

REVIEWER	Louise Allan University of Exeter, UK
REVIEW RETURNED	06-Jun-2019

GENERAL COMMENTS	There is a number of errors in English detailed below. page 4 line 12 need to investigate line 45 more vulnerable to care omissions page 5 line 29 overlooked in their lived experience page 6 line 33 correlated with a specific line 43 proven as an impact page 8 line 26 as frequently line 39 prior to page 10 line 17 for patients line 40 who is a nurse line 42 The pilot study page 14 line 34 number of line 40 participant number line 44 drop out page 15 line 46 voluntary line 54 going to be stored

	page 16 lines 36-40 do not make sense page 17 line 3 marginalising page 18 line 18 the patient's Patient and public involvement There is a misunderstanding here of what PPI is. It doesn't look as if PPI were involved in the design of this study. More detail on limitations needs adding to the discussion.

REVIEWER	Anne-Marie Boström Karolinska Institutet, Sweden
REVIEW RETURNED	12-Jun-2019

GENERAL COMMENTS	You have developed and revised the manuscript very well. I only have a comment that you need to revise the references, in particular the references 22a and 22b. It should not be any a or b.

VERSION 2 – AUTHOR RESPONSE

Reviewers comments	Authors response to comment	Changes made in article	Page number
Reviewer 1			
There is a number of errors in English detailed below. page 4 line 12 need to investigate line 45 more vulnerable to care omissions	Revised	"…leads to the need to investigate this topic." "PwD are more vulnerable to care omissions than older people…"	4
page 5 line 29 overlooked in their lived experience	Revised	"…are often overlooked in their lived…"	5
page 6 line 33 correlated with a specific line 43 proven as an impact	Revised	"…was correlated with a specific group of patients." "…have been proven as an impact of the phenomenon…"	6
page 8 line 26 as frequently line 39 prior to	Revised	"…as frequently as others wards. Inclusion criteria are:" "…first page prior to the questionnaires…"	8
page 10 line 17 for patients line 40 who is a nurse line 42 The pilot study	Revised	"…for longer periods for patients with dementia." "…be the main researcher, who is a nurse."	10

		"The pilot study will include..."	
page 14 line 34 number of line 40 participant number line 44 drop out	Revised	"…with a total number of fifty nurses." "Participant number in those…" "…risk of drop out."	14
page 15 line 46 voluntary line 54 going to be stored	Revised	"of nurses will be voluntary." "…are going to be stored in the researcher's…"	15
page 16 lines 36-40 do not make sense	Thank you for your useful comment. We have revised the sentence for better clarification.	"In addition, is a key concept for early detection of problems, before major repercussions occur. Moreover, detecting nursing care rationing will result in an early recognition of a possible risk by nurses or policy makers [87]."	16
page 17 line 3 marginalising	Revised	"…without marginalizing the other factors…"	17
page 18 line 18 the patient's	Revised	"…to sign on the patients'…"	18
Patient and public involvement There is a misunderstanding here of what PPI is. It doesn't look as if PPI were involved in the design of this study.	Revised. We have explained that PPI is not achievable during phase one and two, but we highlighted their involvement during the design of phase three.	"During phase one and two patient and public involvement is not achievable, but stage three will be modified based on their experiences."	18
More detail on limitations needs adding to the discussion.	Revised	Thank you for helpful remark. Indeed, this was lacking for our manuscript. We have added a paragraph on the discussion section, explaining the limitations of the study.	1,17
Reviewer 2			

You have developed and revised the manuscript very well. I only have a comment that you need to revise the references, in particular the references 22a and 22b. It should not be any a or b.	Revised	Thank you for your kind words. All the bibliography has been revised and references 22 a and b were deleted.	22